

# Aortic Aneurysms

The **aorta** is the body's largest artery and carries oxygen-rich blood from the heart to the rest of the body. The wall of the aorta is very elastic and can normally stretch and then shrink back as needed to adapt to blood flow. However, some medical conditions can weaken the arterial wall. These factors, along with the wear and tear that naturally occurs with aging, can result in a weak aortic wall that may stretch and bulge outwards. An **aortic aneurysm** is a stretched and bulging section in the wall of the aorta. A bulging or enlarged vessel is weakened and can burst or rupture, resulting in life-threatening bleeding. This condition is the 10th leading cause of death in men 65 to 74 years of age in the United States.

The November 11, 2009, issue of JAMA includes an article about abdominal aortic aneurysms. This Patient Page is based on one published in the January 24/31, 2007, issue of JAMA.

## RISK FACTORS FOR AN AORTIC ANEURYSM

- Smoking—90% of persons with aneurysms have smoked
- High blood pressure—distends the lining of the aorta
- Male sex
- Genetics—inherited conditions that adversely affect the supporting connective tissues
- Aging—the aorta becomes less elastic and stiffer with age
- Infections—can damage the lining of the heart and aorta
- Inflammation—the aorta becomes inflamed and scarred
- Trauma—falls or motor vehicle collisions can injure the aorta

## EXAMINATIONS AND TESTS

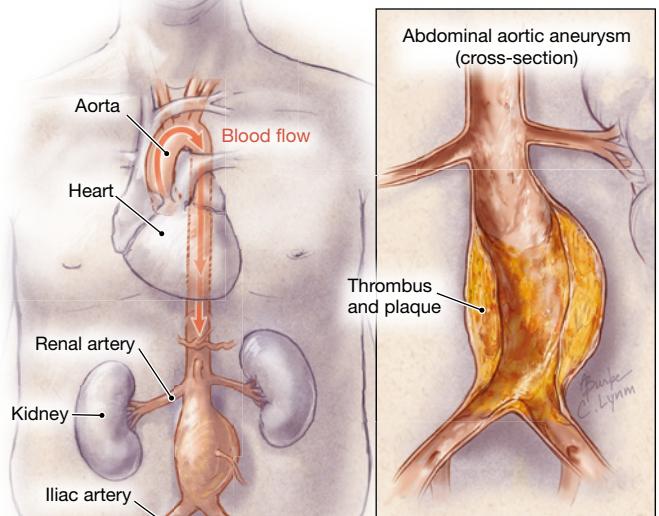
Aortic aneurysms may be suspected or diagnosed by physical examination of the abdomen or by an imaging test. Tests to help determine the location, size, and rate of growth include

- Abdominal ultrasound—noninvasive and painless imaging of the blood vessel by sound waves to track the growth and size of the aneurysm
- Computed tomography (CT)—x-ray test to evaluate related blood vessels and organs and test for the presence of **dissections** (tears along the vessel wall) and blood clots

## TREATMENT

Treatment for an aneurysm depends on its size and location. If the aneurysm is small (less than 5 cm [2 in] in diameter) and you have no symptoms, your physician may advise a "watch-and-wait" approach with regularly scheduled examinations and imaging studies. Quitting smoking and controlling high blood pressure are essential. Medications to lower high cholesterol coupled with programs that help you exercise, quit smoking, and follow a heart-healthy diet can also be helpful. However, if your aneurysm is larger or if the aneurysm is growing more than 1 cm (0.4 in) per year, surgery may be the best treatment option.

Example of Aortic Aneurysm



## FOR MORE INFORMATION

- Society for Vascular Surgery  
[www.vascularweb.org](http://www.vascularweb.org)
- National Heart, Lung, and Blood Institute  
[www.nhlbi.nih.gov](http://www.nhlbi.nih.gov)

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Sources: American College of Surgeons, American College of Cardiology, Society of Thoracic Surgeons

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